

## Geography

### Chapter-2

#### Activities and Questions and Answers.

#### **A. Fill in the Blanks?**

1. The Earth rotates on its **axis**.
2. The **equator** divides the Earth in the Northern and the Southern Hemisphere.
3. The line joining the North Pole and the South Pole is called the **Prime Meridian**.
4. The  $66\frac{1}{2}^{\circ}$  N Latitude is called the **Arctic** Circle.
5. Maximum heat is received in the **Torrid** Zone.

#### **B. Fill in the blanks with the correct answers.**

1. We have a total of \_\_\_\_\_ parallels of latitude.  
(a)  $180^{\circ}$       (b)  $90^{\circ}$       (c)  $80^{\circ}$       (d)  $181^{\circ}$
2. The Arctic Circle and the Antarctic Circle are situated at \_\_\_\_\_ and \_\_\_\_\_.  
(a)  $23\frac{1}{2}^{\circ}$  N and  $23\frac{1}{2}^{\circ}$  S (b)  $66\frac{1}{2}^{\circ}$  N and  $66\frac{1}{2}^{\circ}$  S      (c)  $0^{\circ}$  N
3. The network of criss-cross lines is called a \_\_\_\_\_.  
(a) Parallel      (b) longitude      (c) **grid**      (d) hemisphere.
4. The Standard Meridian of India is \_\_\_\_\_.  
(a)  $82\frac{1}{2}^{\circ}$  W      (b)  $82\frac{1}{2}^{\circ}$  E      (c)  $180^{\circ}$       (d)  $66^{\circ}$  N
5. The most important meridian is the Prime Meridian, which is the \_\_\_\_\_.  
(a)  $180^{\circ}$       (b)  $0^{\circ}$       (c)  $90^{\circ}$       (d)  $23\frac{1}{2}^{\circ}$

#### **C. Distinguish Between.**

1. Latitudes and Longitudes.

Latitudes are imaginary lines that form circles around the Earth. Lines of latitude circle the globe in an east- west direction. They are also known as parallels of latitude. The distances between lines of latitude are always the same.

Longitudes are imaginary lines that join the poles in a north- south direction. They are also called meridians. All lines of longitudes have numbers between 0° to 180°. The prime meridian divided the earth into Eastern Hemisphere and Western Hemisphere.

2. Local time and Standard Time.

Local Time- All places on the same meridian of longitude have noon at the same time. This is called the local time of that particular place. Places located on different meridians have different local time

Standard Time- India has about 30 local times. To avoid confusion, the local time of a central meridian is taken as the Standard Time for the whole country. In India, the longitude of 82° 30' E which passes through Uttar Pradesh is treated as the Standard Meridian. The local time at this meridian is known as the Indian Standard Time.

3. Torrid Zone and Frigid Zone.

Torrid Zone- The region between the Tropic of Cancer and the Tropic of Capricorn receives direct sunrays of the Sun almost throughout the year. This area also receives maximum heat and called the **Torrid Zone**.

Frigid Zone- near the Polar Regions, the rays of the Sun are very slanted and it is very cold. The regions between the Arctic Circle and the North Pole in the Northern Hemisphere, and in the Southern Hemisphere, between the Antarctic Circle and the South Pole are called **Frigid Zones**

4. Northern Hemisphere and Southern Hemisphere.

**Northern Hemisphere** -The northern hemisphere refers to the region which is towards the north of the Equator. Europe and North America lie completely in the northern hemisphere. Almost all of the entire Asian continents and a part of South America lie in the northern hemisphere.

**Southern Hemisphere**- The southern hemisphere refers to the region which is towards the south of the Equator. It contains all or parts of the five continents which are Antarctica, Africa, Australia, South America, and Asia. Moreover, it has four oceans which are Southern, Indian, South Atlantic, and South Pacific.

**D. Answer these questions in brief:-**

1. What do you mean by the lines of latitude?

Ans1 The imaginary lines that circle the globe in an east west direction parallel to the equator are called lines of latitude.

2. Name the important lines of latitude?

Ans2 The Important lines of latitude are:

- The Tropic of Cancer ( $23\frac{1}{2}^{\circ}\text{N}$ )
- the Tropic of Capricorn ( $23\frac{1}{2}^{\circ}\text{S}$ )
- the Arctic circle ( $66\frac{1}{2}^{\circ}\text{N}$ )
- the Antarctic circle ( $66\frac{1}{2}^{\circ}\text{S}$ )

3. Define a longitude?

Ans3 Longitudes are imaginary lines that join the poles in a north – south direction. They are also called meridians, and are used to measure how far east or west the location of a place is.

4. What is local time?

Ans 4 All places on the same meridian of longitude have noon at the same time. This is called the local time of that particular place. Places located on different meridians have different local time.

5. What is Greenwich Meridian?

Ans5 The line in Greenwich represents the Prime Meridian of the World - Longitude  $0^{\circ}$ . Every place on Earth is measured in terms of its distance east or west from this line. The line itself divided the eastern and western hemispheres of the Earth - just as the Equator divides the northern and southern hemispheres.

**E Answer the following in detail:**

Q.1 Describe the climatic zones of the world?

Ans1 The Earth is divided into three Climatic zones- Torrid Zone, Temperate Zone and Frigid Zone.

1. Torrid Zone- The region between the Tropic of Cancer and the Tropic of Capricorn receives direct sunrays of the Sun almost throughout the year. This area also receives maximum heat and called the **Torrid Zone**.
2. Temperate Zone- The regions between the Tropic of Cancer and the Arctic Circle in the northern Hemisphere and The Tropic of Capricorn and the Antarctic Circle in the Southern Hemisphere, are moderately hot . This is because the angle of the Sun’s rays decreases as we move towards the poles. These areas have moderate temperatures and are called the Temperate Zones.
3. Frigid Zone- near the Polar Regions, the rays of the Sun are very slanted and it is very cold. The regions between the Arctic Circle and the North Pole in the Northern Hemisphere, and in the Southern Hemisphere, between the Antarctic Circle and the South Pole are called **Frigid Zones**.

Q.2 What is the relationship between Longitude and Time?

Ans2 A relationship exists between the longitudes and time. The local time is the same in all the places on the same meridian of longitude. That is the local time of that place. The places located on

different meridians have different local times. The earth takes 24 hours to complete one rotation that is, it takes, 24 hours to complete  $360^\circ$  of its rotation.

In 1 hour, the Earth rotates  $360^\circ / 24 = 15^\circ$  Longitudes.

If the Earth takes 60 minutes to rotate  $15^\circ$ , for  $1^\circ$  the Earth takes  $60\text{mins}/15 = 4$  mins.

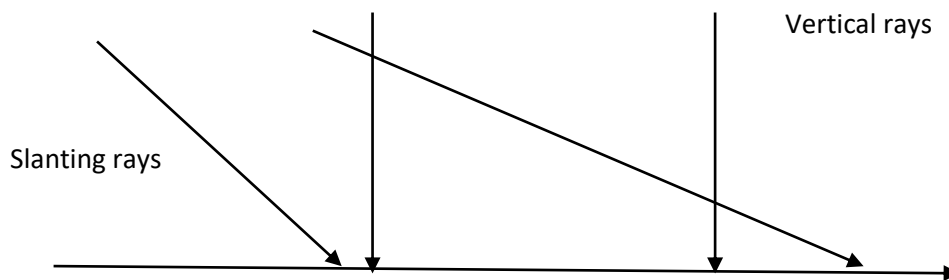
Hence, a difference of  $1^\circ$  longitude creates a time difference of 4 minutes.

Q.3 Why do we use standard time?

Ans3 India has 30 local times. To make a time table considering so many local timings it will create a lot of confusion. To avoid these confusions the local time of a central meridian is taken as the standard time for the whole country. In India the local time at the longitude  $82^\circ 30' E$  is treated as the standard meridian. The local time at this meridian is taken as the standard time for the whole country. It is known as the Indian Standard Time.

Q.4 Explain with the help of a diagram, how the vertical rays of the Sun cover a smaller area as compared to the area covered by the same amount of slanting rays?

Ans 4 Vertical and slanting rays of the Sun.



Q.5 Where does Frigid Zone locate and why is it called so?

Ans5 Near the Polar Regions, the rays of the Sun are very slanted and it is very cold. The regions between the Arctic Circle and the North Pole in the Northern Hemisphere, and in the Southern Hemisphere, between the Antarctic Circle and the South Pole are called Frigid Zones it is called so because it is very cold there as this area is frozen and permanently covered with snow.

Q.6 How do latitudes and longitudes help to locate places?

Ans 6 Lines of latitude help us locate places on the Earth, north and south of the Equator. In the Same way longitudes help us locate places on the Earth east or west of the Prime Meridian. When the latitude and longitude are drawn on a map they form a grid. This pattern of squares is used to find places. The latitude is always place before the longitude and they intersect each other at right angles. The point where the latitude and longitude of a place intersect gives us the exact location of a place.